| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/665,807 | 09/19/2003 | Dan Adamson | MS320514.02/MSFTP1836USA | 6636 |

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| EXAMINER |
|---|
| JANAKIRAMAN, NITHYA |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2123 | |

| NOTIFICATION DATE | DELIVERY MODE |
|---|---|
| 02/06/2009 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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PTOL-90A (Rev. 04/07)

| | Application No. | Applicant(s) |
| --- | --- | --- |
| ***Office Action Summary*** | 10/665,807 | ADAMSON ET AL. |
| | Examiner | Art Unit | |
| | NITHYA JANAKIRAMAN | 2123 | |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) ☒ Responsive to communication(s) filed on <u>07 November 2008</u>.

2a) ☒ This action is **FINAL.**     2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) ☒ Claim(s) <u>1-11,13,14 and 16-22</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) <u>9 and 17-19</u> is/are allowed.

6) ☒ Claim(s) <u>1,3,5,6,10,11,13,14,16 and 20-22</u> is/are rejected.

7) ☒ Claim(s) <u>2,4,7 and 8</u> is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>19 September 2003</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

## DETAILED ACTION

This action is in response to the submission filed on 11/7/08. Claims 1-11, 13-14, 16-22 are

presented for examination.


### *Response to Arguments- 35 U.S.C §101*

1.      Applicant's arguments, with respect to claims 10 and 11 have been fully considered and

are persuasive. The rejections of claims 10 and 11 have been withdrawn.


### *Response to Arguments- 35 U.S.C §103*

2.      Applicant's arguments filed 11/7/08 have been fully considered but they are not

persuasive.

**Argument 1:**

3.      Applicant argues on page 10 that Zeleznikow does not teach various limitations

concerning analyzing specific retrievable documents, searching for keywords, or populating the

properties of the models using data extracted from the document.

4.      Examiner is utilizing Zeleznikow only for the teaching of a set of domain models *(page

68)*. All other generating and analysis steps are undertaken by Birsan and LawBot. Rejection

maintained.

**Argument 2:**

5.      Applicant argues on page 10 that LawBot does not teach that "domain models for a

specific document can be generated based on an analysis of keywords in the document", and that

LawBot is "not employed to generate one or more domain models representing the document"

6.      LawBot is not used for the teaching of generation of one or more domain models,

LawBot is being utilized for the teaching of analyzing keywords in a document *(see page 35).*

Birsan teaches the generation of a domain model *(see column 4, lines 61-64, "As described*

*above, the source data model (i.e. domain model 16 in Fig. 1) contains read-only data that the*

*mechanism 10 can extract and use to generate a formatted output (i.e. the target data model 18).*

Rejection maintained.

7.      All other arguments, see pages 11 and 12, have been fully considered and are persuasive.

The rejections of claims 2, 8, and 9 have been withdrawn.


### *Claim Objections*

8.      Claims 2, 4, 7, 8, and 22 are objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the limitations of the

base claim and any intervening claims.


### *Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

9.      Claims 10 and 20-22 rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention.

10.     The scope of claim 10 is unclear.  The claim appears to be directed to a system on a

medium containing instructions that when executed on a processor performs method steps.  It is

unclear to which statutory category the claim is directed. All depending claims are rejected as

well.

11.     Claims 20-22 change statutory categories. Claims 20 and 21 are method claims, but

depend from claim 10, which is a system claim. Claim 22 is also a method claim, and depends

from a medium claim. Appropriate correction is required.


### Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

12.     Claims 1, 3, 5, 6, 10, 11, 13, 14, 16, 21, rejected under 35 U.S.C. 103(a) as being

unpatentable over US Patent 7,131,066 ("Birsan") in view of "LawBot: A Multiagent Assistant

for Legal Research" ("LawBot"), further in view of "Integrating the Document Object Model

with Hyperlinks for Enhanced Topic Distillation and Information Extraction" ("Zeleznikow").

13.     Birsan teaches the capability to processing a source file and the creation of a domain

model. However, Birsan does not teach searching for keywords and related keywords. Birsan

also does not teach the generation of a *set* of domain models.

14.     LawBot teaches searching for a set of keywords entered by a user, as well as related

search words *(page 35)*.

15.     Zeleznikow teaches the concept of a set of domain models *(page 68)*.

16.    Birsan, LawBot and Zeleznikow are all analogous art because they are all related to the

field of ontology.

17.    Therefore, it would have been obvious to one having ordinary skill in the art at the time

the invention was made to combine the searching of keywords of LawBot with the processing of

a source file of Birsan, motivated by the desire to "collect, filter, organize, and recommend" data

to assist researchers, which is clearly desirable to one of ordinary skill in the art *(LawBot, page*

*32)*. It also would have been obvious to combine the set of domain models of Zeleznikow with

the generation of a domain model of Birsan, motivated by the desire to "specify domain

knowledge" *(Zeleznikow, page 68)*.


18.    Regarding claims 1, 10, and 11, Birsan, LawBot, and Zeleznikow teach:

A computer-implemented method to process a document *(Birsan: column 2, lines 48-50)*,
comprising:

analyzing features of a document for the presence of specific keywords, the keywords defined in
a pre-set vocabulary list *(LawBot: page 35, left column)*;

determining the presence of a keyword in the document that matches a keyword appearing in the
pre-set vocabulary list *(LawBot: page 35, left column)*;

searching the document for additional keywords related to the matching keyword to determine a
context for the matching keyword *(LawBot: page 35, "Legally appropriate synonyms...LawBot*
*uses its legal ontology to search by child as well when a user chooses baby as the search*
*word")*;

generating a set of domain models *(Birsan: column 4, lines 61-64, "As described above, the*
*source data model (i.e. domain model 16 in Fig. 1) contains read-only data that the mechanism*
*10 can extract and use to generate a formatted output (i.e. the target data model 18)";*
*Zeleznikow: page 68, "specify a set of domain models")* that represent the document, the domain
models selected to represent the document are a function of the matching keyword and the
additional related keywords and comprise properties relevant to the matching keyword *(LawBot:*
*page 35, "Legally appropriate synonyms...LawBot uses its legal ontology to search by child as*

*well when a user chooses baby as the search word");*

populating the properties of the set of domain models with corresponding data extracted from the document *(Birsan: column 4, lines 23-25, The target data model 18 contains both read/write data that is manipulated by the mechanism 10);*

storing the set of domain models together with other domain models representing other documents *(Birsan: column 13, line 35);*

structuring the stored domain models so as to be searchable by a querying system *(Birsan, column 5, line 46 to column 6, line 10, "targetscope directive");* and

retrieving a collection of domain models in response to a search performed on the document for further analysis of specific domain model properties *(Birsan: column 8, lines 37-44).*


19.     Regarding claim 3, Birsan, LawBot, and Zeleznikow teach:

The method of claim 1, further comprising:

searching the set of domain models to determine a subset of features of the document that match search criteria *(Birsan: column 8, lines 37-44).*


20.     Regarding claim 5, Birsan, LawBot, and Zeleznikow teach:

The method of claim 1, further comprising:

describing the document as instances of the respective models of the set *(Birsan: column 4, line 61 to column 5, line 6).*


21.     Regarding claim 6, Birsan, LawBot, and Zeleznikow teach:

The method of claim 1, further comprising:

setting values in at least one of the models that represent supplemental information not in the document but that is associated with the document *(Birsan: column 9, lines 8-11, "template file").*


22.     Regarding claim 13, Birsan, LawBot, and Zeleznikow teach:

The method of claim 1, further comprising representing portions of the documents with respective instances of a subset of the generated domain models *(Birsan: column 4, lines 61-64, "As described above, the source data model (i.e. domain model 16 in Fig. 1) contains read-only data that the mechanism 10 can extract and use to generate a formatted output (i.e. the target data model 18)".*

23.     Regarding claim 14, Birsan, LawBot, and Zeleznikow teach:

The method of claim 13, wherein the respective instances are computation ready representations of the portions of the documents that can be understood by at least one computer applications *(Birsan: column 1, line 32 to column 2, line 37).*

24.     Regarding claim 16, Birsan, LawBot, and Zeleznikow teach:

The method of claim 1, wherein a hierarchy of domain models are generated as a function of respective analyzed features *(Birsan: column 4, lines 61-64, "As described above, the source data model (i.e. domain model 16 in Fig. 1) contains read-only data that the mechanism 10 can extract and use to generate a formatted output (i.e. the target data model 18)".*

25.     Regarding claim 21, Birsan, LawBot, and Zeleznikow teach:

The method of claim 10, further comprising means for searching across the plurality of domain models in connection with calculating statistics associated with a set of documents *(LawBot: page 37, "the documents are ranked and presented to the user while the next set of documents is fetched in the background…").*

### *Allowable Subject Matter*

26.     While Birsan, LawBot and Zeleznikow teach analyzing a document for keywords and

generating a set of domain models, none of these references and the remaining prior art of record

in combination with the remaining elements and features of the claimed invention, discloses or

suggests "when a respective property type for the domain model is of the complex type,

selectively adding another domain model as the value for that property, according

to the document being represented" (claim 2), "applying an algorithm to the respective properties

of the retrieved collection of domain models to compute a data value relating to the collection"

(claims 8, 9), or "The method of claim 11, the set of instructions further causing the machine to

populate at least one domain model property value with a disparate domain model" (claim 22).


### *Conclusion*

Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to NITHYA JANAKIRAMAN whose telephone number is

(571)270-1003. The examiner can normally be reached on Monday-Thursday, 8:00am-5:00pm,

EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Paul Rodriguez can be reached on (571)272-3753. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nithya Janakiraman/
Examiner, Art Unit 2123

                                                            /Paul L Rodriguez/
                                                            Supervisory Patent Examiner,
                                                            Art Unit 2123